

Fact Sheet

Kelly Air Force Real Property Agency



February 2003

Zone 5 Groundwater Progress

The Air Force has made progress on groundwater cleanup in the northern part of the former Kelly Air Force Base, or Zone 5. The Air Force will use two Permeable Reactive Barriers and enhanced bioremediation to cleanup off-base groundwater contamination near the northern boundaries of Kelly. These cleanup systems will bring the levels of the solvents tetrachloroethene (PCE) and trichloroethene (TCE), as well as their breakdown products, dichloroethene and vinyl chloride, in the groundwater to drinking water standards. The solvents PCE and TCE were used to degrease engine parts.

One PRB was installed along the northeastern border of the base in 2002 to treat an off-base TCE plume there. A PRB is an underground trench filled with iron filings and placed to intercept the flow of groundwater. As contaminants are carried by groundwater through the trenches, they chemically react with the iron filings and are converted to carbon dioxide, water and the mineral chloride. PRBs clean the groundwater beneath the surface.

Enhanced bioremediation is being used to supplement the PRB by treating the source of the TCE which was a solvent tank housed in

the northern part of the base. Lactate, a substance like vegetable oil, is injected into the ground through wells. As microbes eat and digest the lactate, the TCE is broken down into water, carbon dioxide, ethane and the mineral chloride. The Air Force estimates the source will be cleaned in two to five years.

In 2003, the Air Force will install a second PRB to treat a PCE plume off-base in the area of 34th Street. Although evidence indicates that Kelly is not the source of the PCE plume, the Air Force will treat the plume because it contributes to plumes near East Kelly that the Air Force will cleanup.

Zone 5 also has six plumes that are completely on base. The Air Force has proposed that four of these, which are TCE plume, be monitored as the contamination breaks down naturally. The Air Force will use enhanced bioremediation at the source to treat a fifth plume, which contains PCE. The sixth plume contains chlorobenzene, and the Air Force will use vapor extraction and pump-and-treat systems to treat it. Vapor extraction captures chemicals as they evaporate and treat them using an air filtration system. Pump-and-treat systems pumps contaminated groundwater to a treatment plant where the chemicals are removed.

The Air Force sent a cleanup proposal for Zone 5 to the Texas Commission for Environmental Quality (TCEQ) in 2002. The TCEQ must approve this cleanup proposal, called the Zone 5 Corrective Measures Study (CMS), before it can be considered the final environmental cleanup remedy in this area.

The Zone 5 CMS is available at :
San Antonio Central Library
Government Documents Section
600 N. Soledad
San Antonio, TX 78205

Kelly AFRPA Library
Bldg. 1650, room 138
250 Goodrich Dr., STE.6
Kelly AFB, TX 78241

Questions?

AFRPA is dedicated to involving the community in the cleanup program for the former Kelly Air Force Base. For more information on this project, please call the AFRPA Public Information Line at 210-925-0956 or visit our web site at www.kellyafb.net.